FIG. 1

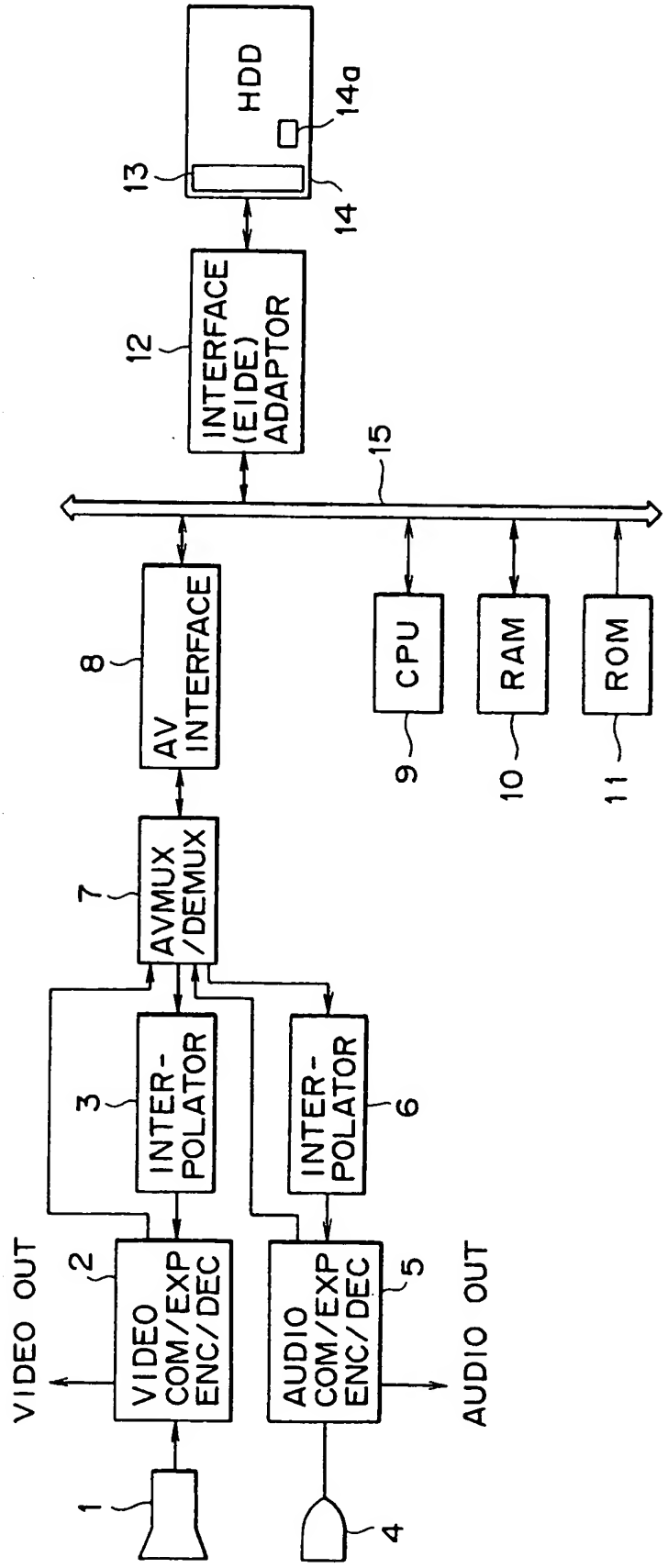

HDD
14a
13
14
12
INTERFACE (EIDE) ADAPTOR
15
8
AV INTERFACE
CPU
RAM
ROM
9
10
11
7
AVMUX /DEMUX
3
INTER-POLATOR
6
INTER-POLATOR
VIDEO OUT
2
VIDEO COM/EXP ENC/DEC
AUDIO COM/EXP ENC/DEC
5
AUDIO OUT
1
4

FIG. 2

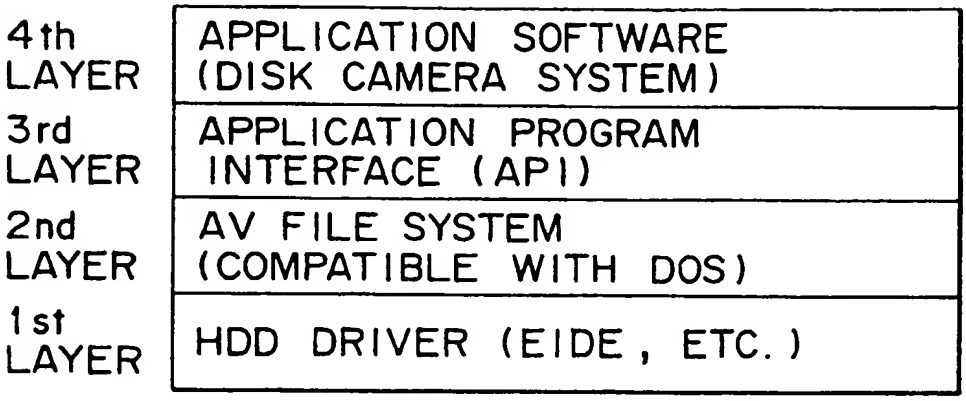

4th LAYER
APPLICATION SOFTWARE (DISK CAMERA SYSTEM)
3rd LAYER
APPLICATION PROGRAM INTERFACE (API)
2nd LAYER
AV FILE SYSTEM (COMPATIBLE WITH DOS)
1st LAYER
HDD DRIVER (EIDE, ETC.)

FIG. 3

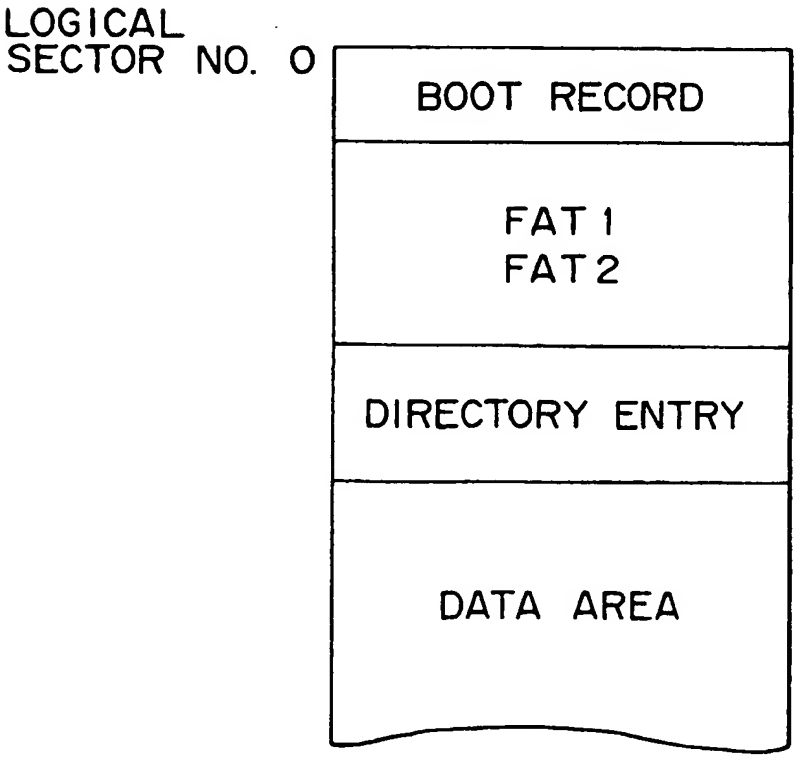

LOGICAL SECTOR NO. 0
BOOT RECORD
FAT 1
FAT 2
DIRECTORY ENTRY
DATA AREA

FIG. 4

CONTENTS	OFFSET	LENGTH
FILE NAME	00h	8 BYTES
EXTENDER	08h	3 BYTES
ATTRIBUTE	0Bh	1 BYTE
SYSTEM RESERV.	0Ch	10 BYTES
RENEWAL TIME	16h	1 WORD
RENEWAL DATA	18h	1 WORD
TOP CLUSTER NO.	1Ah	1 WORD
FILE SIZE	1Ch	1 DOUBLE WORD

FIG. 5

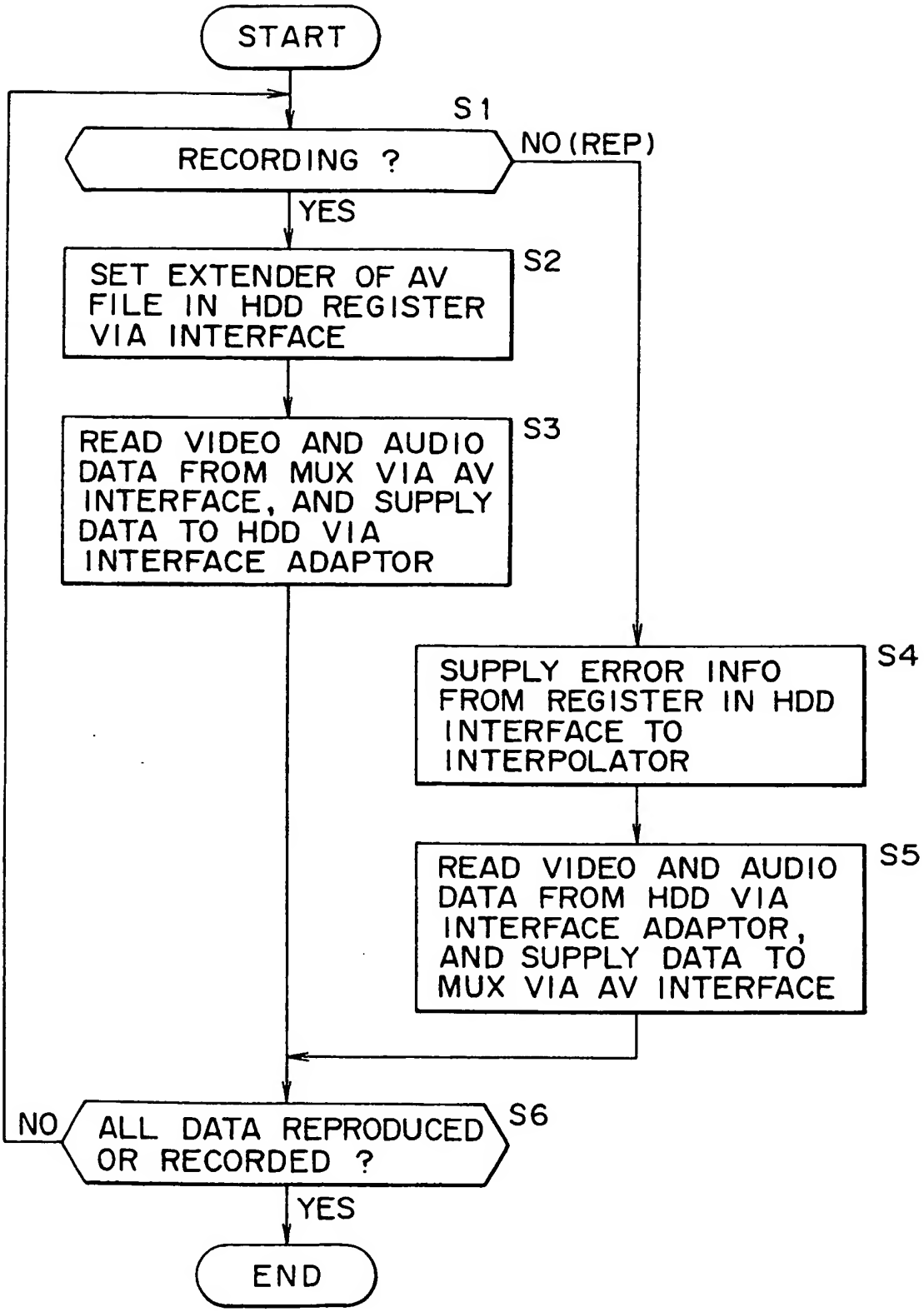

START
S1
RECORDING ?
NO(REP)
YES
SET EXTENDER OF AV FILE IN HDD REGISTER VIA INTERFACE
S2
READ VIDEO AND AUDIO DATA FROM MUX VIA AV INTERFACE, AND SUPPLY DATA TO HDD VIA INTERFACE ADAPTOR
S3
SUPPLY ERROR INFO FROM REGISTER IN HDD INTERFACE TO INTERPOLATOR
S4
READ VIDEO AND AUDIO DATA FROM HDD VIA INTERFACE ADAPTOR, AND SUPPLY DATA TO MUX VIA AV INTERFACE
S5
NO
ALL DATA REPRODUCED OR RECORDED ?
S6
YES
END

FIG. 6

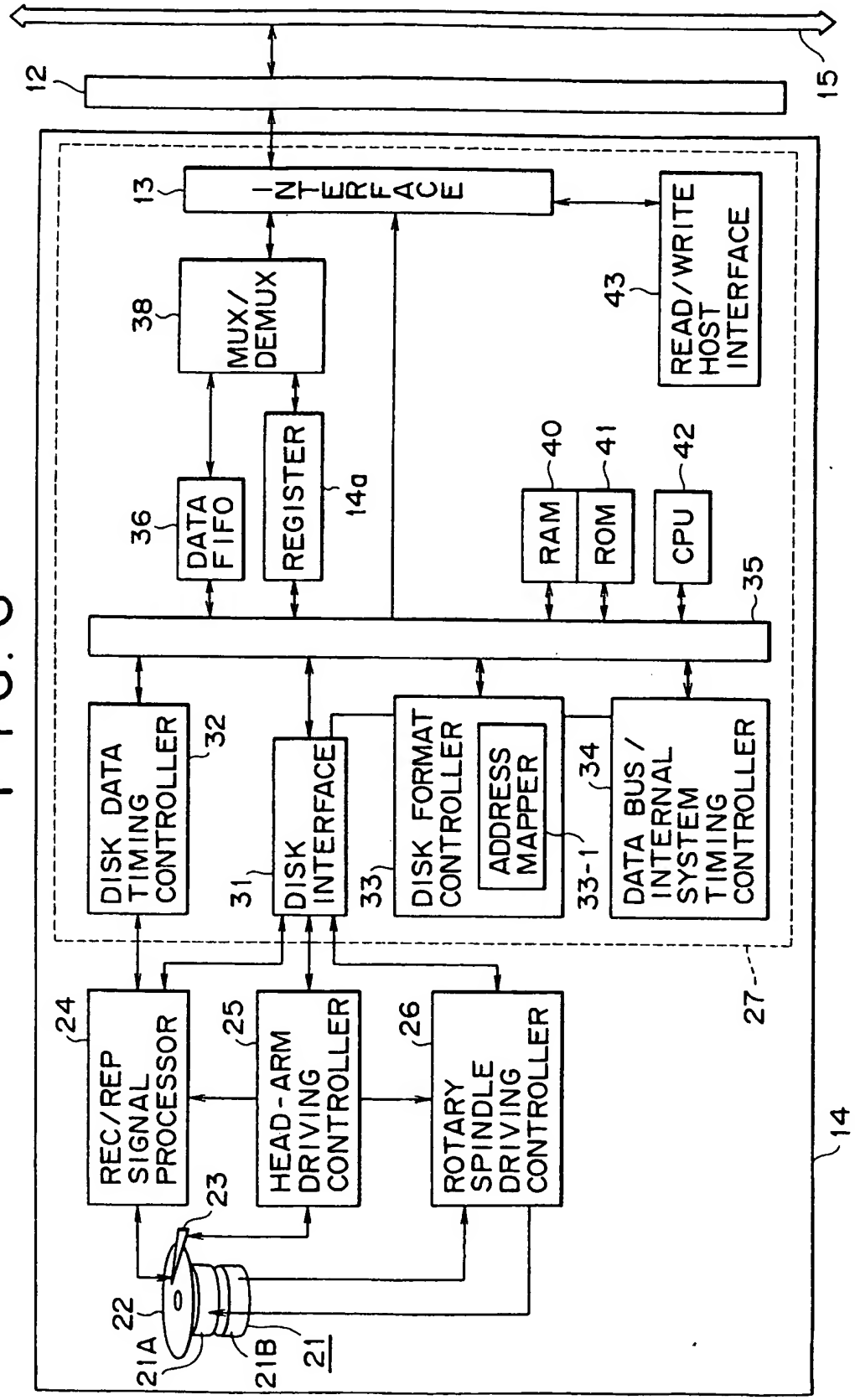
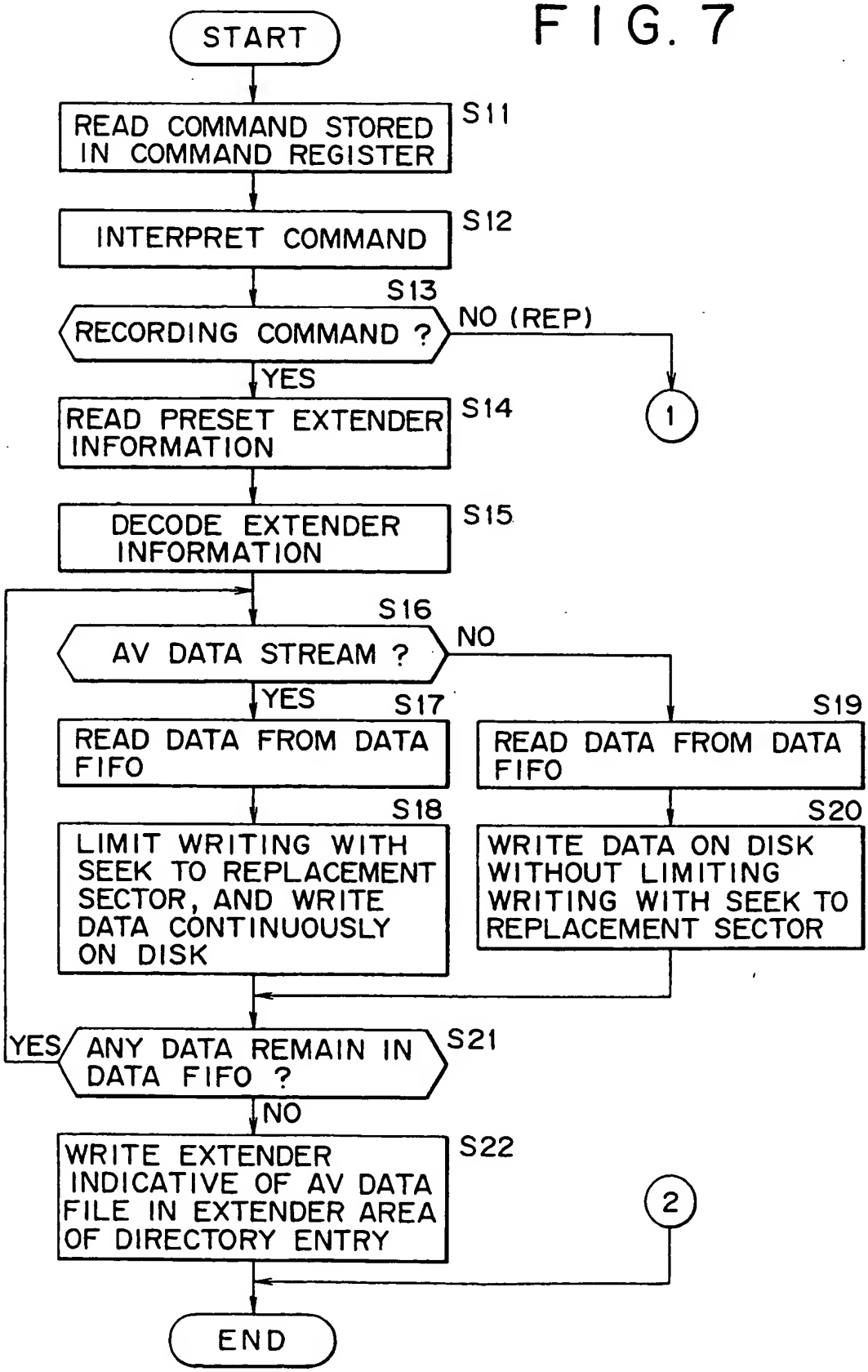

12
15
13
INTERFACE
38
MUX/
DEMUX
43
READ/WRITE
HOST
INTERFACE
36
DATA
FIFO
REGISTER
14a
40
RAM
41
ROM
42
CPU
35
DISK DATA
TIMING
CONTROLLER
32
31
DISK
INTERFACE
33
DISK FORMAT
CONTROLLER
ADDRESS
MAPPER
34
33-1
DATA BUS /
INTERNAL
SYSTEM
TIMING
CONTROLLER
27
24
REC/REP
SIGNAL
PROCESSOR
25
HEAD-ARM
DRIVING
CONTROLLER
26
ROTARY
SPINDLE
DRIVING
CONTROLLER
14
23
22
21A
21B
21

FIG. 7


START
READ COMMAND STORED IN COMMAND REGISTER
S11
INTERPRET COMMAND
S12
S13
RECORDING COMMAND ?
NO (REP)
YES
1
READ PRESET EXTENDER INFORMATION
S14
DECODE EXTENDER INFORMATION
S15
S16
AV DATA STREAM ?
NO
YES
S17
READ DATA FROM DATA FIFO
S18
LIMIT WRITING WITH SEEK TO REPLACEMENT SECTOR, AND WRITE DATA CONTINUOUSLY ON DISK
S19
READ DATA FROM DATA FIFO
S20
WRITE DATA ON DISK WITHOUT LIMITING WRITING WITH SEEK TO REPLACEMENT SECTOR
YES
ANY DATA REMAIN IN DATA FIFO ?
S21
NO
WRITE EXTENDER INDICATIVE OF AV DATA FILE IN EXTENDER AREA OF DIRECTORY ENTRY
S22
2
END